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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,341	06/14/2001	Noriyoshi Chizawa	1232-4723	7022
27123	7590	12/16/2004	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			VUONG, JASON DUY ANH	
			ART UNIT	PAPER NUMBER
			2626	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/881,341	CHIZAWA, NORIYOSHI	
	Examiner	Art Unit	
	Jason D. A. Vuong	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/14/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06-30-2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "An Image Processing Apparatus Capable of Reducing Power Consumption while Connected to an External Device."

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 6, 7, 10, and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding **Claim 5**, according to this claim, both the main controller, and the other apparatus give instructions to control the switch. However, it is not possible for two devices (main controller, and other apparatus) to control another device (switch) at once because the controlled device (switch) will be confused as to which instruction to follow. If the main controller wants to close (connect) the switch, and the other apparatus wants to open (disconnect) the switch, the switch will not know which instruction to follow, and it will not know what to do. The specification does not explain how this is performed; without the detailed explanation or teaching, one of ordinary skill in the art would have been burdened by undue experimentation to make or use the claimed invention.

Regarding **Claims 6, 7, 10, and 11**, these claims are rejected because they depend on the rejected **Claim 5**.

3. **Claim 2** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Line 1 of Claim 2 contains the phrase "The apparatus according to claim 1" which is considered as indefinite because it is unclear whether it refers to the "image processing apparatus", or the "other apparatus".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 2, 3, 18, 19, 22, 23 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,526,516 B1 to Ishikawa et al. in view of U.S. Patent No. 5,812,386 to Youn.

Regarding **Claim 1**, Ishikawa et al. disclose an image processing apparatus (see Figure 1, Element 109) that connects to the other apparatus (see Figure 1 Element 117) through a single cable (refer to Column 2 Lines 60-61). The image processing apparatus (Figure 1 Element 109) is getting its power from the other apparatus (Figure 1 Element 117, and Column 5 Lines 49-52). However, Ishikawa et al. do not disclose a switch that is used to connect or disconnect a power input and a power circuitry

Youn, on the other hand, discloses a switch (see Figure 2 Element 204 Transistor TR) that is used to connect or disconnect a power input (see Figure 2 Element AC POWER) and a power circuitry (see Figure 2 Element 202). The Power Controller (Figure 2 Element 208) controls the switch TR.

Therefore, it would have been obvious to one having ordinary skill in the art to combine Youn's switching invention with Ishikawa et al.'s invention. The motivation of connecting other devices together using a single cable is to provide an easy way to connect devices together, and connector space required for each device is reduced as well as the cost of making the connections. The motivation of using a power switching circuit is to only provide power when needed; therefore it minimizes power consumption. So, the combined motivation is to effectively distribute power among a plurality of devices, and to reduce cost and connector space.

Regarding **Claim 2**, Youn's invention discloses an AC connector (Figure 2 Element AC POWER), and Ishikawa also discloses an AC power source (see Figure 1).

Regarding **Claim 3**, according to Ishikawa et al., their invention can also be achieved by storing program codes that perform the functions according to the embodiments, and reading them with a CPU, or MPU, and then executing the program (refer to Column 26 Lines 43-52). Therefore, it is quite simple for one having ordinary skill in the art to provide a storage medium inside the controller that contains program codes instructing the power controller to control the switch.

Regarding **Claims 18 and 22**, Ishikawa et al. disclose an image output unit (Figure 1 Element 117).

Regarding **Claim 19**, Ishikawa et al. disclose an image processing apparatus (see Figure 1, Element 109) that connects to another image processing apparatus (see Figure 1 Element 117) through a single cable (refer to Column 2 Lines 60-61). The image processing apparatus (Figure 1 Element 109) is getting its power from the other image processing apparatus (Figure 1 Element 117, and Column 5 Lines 49-52). However, Ishikawa et al. do not disclose a switch that is used to connect or disconnect a power input and a power circuitry

Youn, on the other hand, discloses a switch (see Figure 2 Element 204 Transistor TR) that is used to connect or disconnect a power input (see Figure 2 Element AC POWER) and a power circuitry (see Figure 2 Element 202). The Power Controller (Figure 2 Element 208) controls the switch TR.

Therefore, it would have been obvious to one having ordinary skill in the art to combine Youn's switching invention with Ishikawa et al.'s invention. The motivation of connecting other devices together using a single cable is to provide an easy way to connect devices together, and connector space required for each device is reduced as well as the cost of making the connections. The motivation of using a power switching circuit is to only provide power when needed; therefore it minimizes power consumption. So, the combined motivation is to effectively distribute power among a plurality of devices, and to reduce cost and connector space.

Regarding **Claim 23**, Ishikawa et al. disclose an image processing apparatus (see Figure 1, Element 109) that connects to another image processing apparatus (see

Figure 1 Element 117) through a single cable (refer to Column 2 Lines 60-61). The image processing apparatus (Figure 1 Element 109) is getting its power from the other image processing apparatus (Figure 1 Element 117, and Column 5 Lines 49-52). However, Ishikawa et al. do not disclose a switch that is used to connect or disconnect a power input and a power circuitry

Youn, on the other hand, discloses a switch (see Figure 2 Element 204 Transistor TR) that is used to connect or disconnect a power input (see Figure 2 Element AC POWER) and a power circuitry (see Figure 2 Element 202). The Power Controller (Figure 2 Element 208) controls the switch TR.

Therefore, it would have been obvious to one having ordinary skill in the art to combine Youn's switching invention with Ishikawa et al.'s invention. The motivation of connecting other devices together using a single cable is to provide an easy way to connect devices together, and connector space required for each device is reduced as well as the cost of making the connections. The motivation of using a power switching circuit is to only provide power when needed; therefore it minimizes power consumption. So, the combined motivation is to effectively distribute power among a plurality of devices, and to reduce cost and connector space.

Regarding **Claim 24**, Ishikawa et al. disclose an image reader (Figure 1 Element 109) as the first image processing apparatus, and an image output device (Figure 1 Element 117) as the second image processing apparatus.

5. Claims 4, 5, 6, 7, 8, 9, 10, 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,526,516 B1 to Ishikawa et al. in view of U.S. Patent No. 5,812,386 to Youn as applied to Claims 1, 2, and 3 above, and further in view of U.S. Patent Publication No. US 2002/0126516 A1 to Jeon.

Regarding Claim 4, Ishikawa et al. and Youn do not disclose the use of a main controller in their inventions.

However, Jeon discloses the use of the Main Control Unit (see Figure 1 Element 14).

According to Ishikawa et al., their invention can also be achieved by storing program codes that perform the functions according to the embodiments, and reading them with a CPU, or MPU, and then executing the program (refer to Column 26 Lines 43-52). Therefore, it would have been obvious to one having ordinary skill in the art to provide a storage medium inside the Main Control Unit of Jeon's invention that contains program codes instructing the power controller to control the switch. The motivation to do so is to provide a centralized method of controlling power.

Regarding Claim 5, this claim is essentially a combination of Claims 3 and 4. Therefore, it is rejected on the same basis as the rejections of Claims 3 and 4 above.

Regarding Claim 6, one having ordinary skill in the art clearly can combine Ishikawa et al.'s invention and Youn's invention, and also integrate the Main Control

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Unit of Jeon's invention in such a way that the Main Control Unit operates by using electric power supplied from the power circuit. The motivation to do so is to have a simple design by just having one power circuit providing power to multiple devices.

Regarding **Claim 7**, Ishikawa et al. disclose the power controller that controls a switch (Figure 9 Element 13, Figure 13 Element 42, Figure 14 Element 53), and the other apparatus (Figure 1 Element 117) instructs the power controller to do so via Elements 111 and 110 of Figure 1.

Regarding **Claims 8 and 9**, one having ordinary skill in the art can modify Jeon's Main Control Unit (Figure 1 Element 14) to include the notifying function. According to Jeon, the Main Control Unit can check whether the function-performing unit finishes a predetermined function or still performs the predetermined function (Paragraph [0028] Lines 6-9). It is possible for one having ordinary skill in the art to modify the Main Control Unit of Jeon's invention to check for two additional conditions. The two additional conditions are: a condition of which a predetermined operation or function is executable, and a condition of which a predetermined operation or function is not executable after a predetermined time period (refer to Paragraph [0029] Lines 1-4). The Main Control Unit will notify the other apparatus of the result of the checking. The motivation to do so is to provide a centralized and systematic way of controlling multiple devices or components, and reduce power consumption.

Regarding **Claims 10, 11, 20 and 21**, it is clear (see the rejections of Claims 8 and 9 above) that one having ordinary skill in the art can add checking functionality to Jeon's Main Control Unit in such a way that it can check whether a particular device (the other apparatus, or the other image processing apparatus) is able to execute a predetermined function or operation, or not able to execute a predetermined function or operation after a predetermined time period (refer to Jeon's Publication, Paragraph [0029] Lines 1-4). The power controller can simply close (connect) the switch if the other apparatus, or the other image processing apparatus is able to execute a predetermined function or operation, and it can simply open (disconnect) the switch if the other apparatus, or the other image processing apparatus is not able to execute a predetermined function or operation. The motivation to do so is to provide a centralized and systematic way of controlling multiple devices or components, and reduce power consumption.

6. **Claims 12, 13, 14, 15, 16 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,526,516 B1 to Ishikawa et al. in view of U.S. Patent No. 5,812,386 to Youn as applied to **Claims 1, 2, and 3** above, and further in view of U.S. Patent Publication No. US 6,334,719 B1 to Kimura.

Regarding **Claim 12**, Ishikawa et al. and Youn do not disclose the use of sensors in their inventions.

However, Kimura discloses the use of sensors arranged at various locations within a device to sense the state of the device (refer to Column 3 Lines 29-35).

Therefore, it would have been obvious to one having ordinary skill in the art to use a sensor as taught by Kimura to sense a specific state of a device, and then control the switch according to the result of the sensor. The motivation to do so is to provide a feedback control system that would detect errors automatically. Also, such a sensor can be used (as in Kimura) as part of a power saving system to detect when a document is present (refer to Column 2 Lines 20-45, and Figures 3 and 4).

Regarding **Claim 13**, Youn and Ishikawa et al. do not disclose the use of sensors in their inventions, but Ishikawa discloses the use of an image reader (Figure 1 Element 101).

However, Kimura discloses both the image reader (Figure 1 Element 2) and the use of sensors (Figure 1 Elements 25, 26, 27) associated with the image reader.

Therefore it would have been obvious to one having ordinary skill in the art to use the document sensor (Figure 1 Element 25) for starting the image read operation, and have the output of the sensor connected to the input of the power controller to control the switch. The motivation to do so is to provide an automatic power control system capable of reducing power consumption. When the document is absent, the switch is not turned on, and therefore power consumption is reduced.

Regarding **Claim 14**, Ishikawa et al.'s invention is capable of providing power to other devices and components. Therefore, it would have been obvious to one having ordinary skill in the art to use Ishikawa et al.'s invention to provide electric power to the sensor.

Regarding **Claim 15**, Kimura discloses the image reader (Figure 1 Element 2), which includes a cover plate that is not shown (refer to Column 3 Lines 35-36). The image reader also includes an automatic document feeder (Figure 1 Element 24). The cover plate sensor (Figure 1 Element 27) senses opening/closure of the cover plate and the automatic document feeder (refer to Column 3 Lines 34-36).

Regarding **Claim 16**, Kimura discloses the image reader (Figure 1 Element 2) comprises a glass platen (Figure 1 Element 10), and a document sensor (Figure 1 Element 26), which senses that an original is placed on the glass platen (refer to Column 3 Lines 33-34).

Regarding **Claim 17**, Kimura discloses the image reader (Figure 1 Element 2) comprises an automatic document feeder (Figure 1 Element 24), and a document sensor (Figure 1 Element 25), which senses that an original is placed on the feeder (refer to Column 3 Lines 31-32).

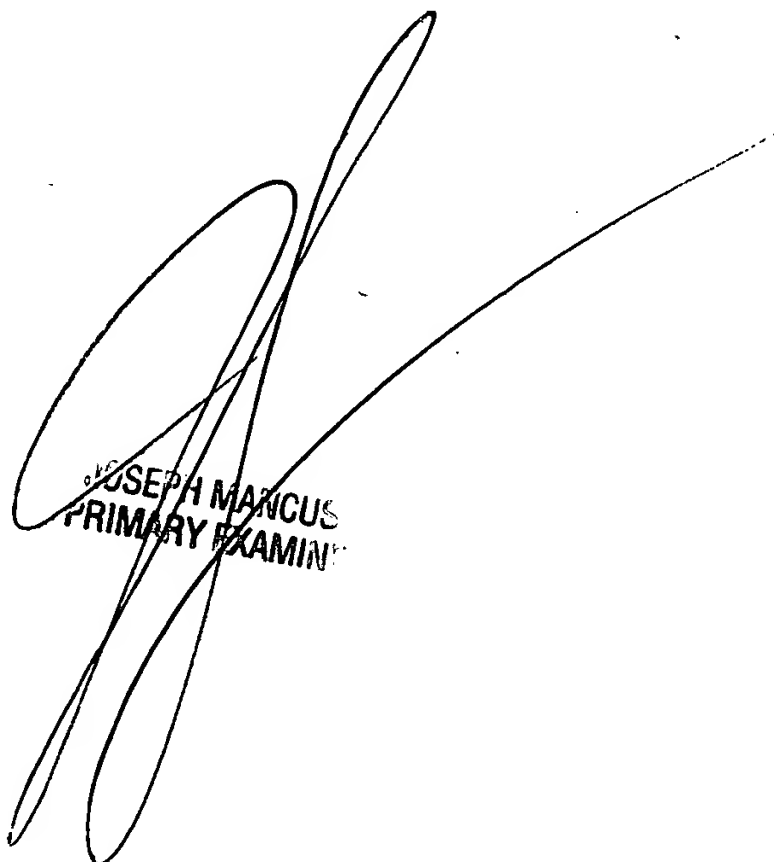
Allowable Subject Matter

7. **Claim 7** is allowable.

Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication should be directed to Jason Vuong at 703-306-4157.


JOSEPH MANCUS
PRIMARY EXAMINER